

VIEWS FROM THE WATERSHED

Fall 2018

P.O. Box 3247, Nogales, AZ 85621

Questions, contact Chris Postel, clerk.scnr.cd@gmail.com

Chairman's Column by Stephen Williams

Natural Resource Conservation District Cooperators, and other folks interested in natural resource conservation, often ask what is in it for them if they belong to the local conservation district. For your Santa Cruz NRCD, my response is information regarding the resource concerns that are of interest to you.

Recently we mailed out a Cooperator Questionnaire to solicit your advice about resource concerns are of most importance to you and your operation. To date, Noxious Plant and Pest Control ranked as the most important concern. Tied for number two are Livestock Water Developments and Soil Erosion Control. Look for informational workshops in the future, conducted by subject matter experts, to answer your questions about these topics. The district also plans to provide field trips to areas where such practices have been applied or are being implemented.

These rankings also assist our cooperators by allowing the district to provide information to the Natural Resource Conservation Service (NRCS) about what conservation practices we would like prioritized for funding through the Farm Bill. Those funds can be directed to Arizona, and to southeastern Arizona specifically if the demand can be demonstrated.

A District Cooperator Agreement was also mailed. Please complete this form so that the district can have your updated contact information. We have a new website under construction, and plan to provide 3-4 newsletters per year. These will keep you informed about natural resource topics of interest to you. So, help us help you by completing and returning the Cooperator Agreement.

The first Saturday in May of even numbered years is the NRCD Election Day. This year our district did not need to hold an election since no cooperator filed either a Nomination Petition or a Write in Candidate Petition. Our five member board consists of three elected positions and two appointed positions. Your elected supervisors are Bill Schock from Elgin and Barbara Neville Johnson from Nogales.

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One elected position is vacant due to last year's resignation of Mark Larkin. The two appointed positions are held by me and Dan Bell from Nogales. If any cooperator is interested in filling our vacant elected position, please let one of our board members know. The board members are also interested in hearing from you about what we can do to make our NRCD more relevant to you.

Please note that three of this year's attendees at the Natural Resources Conservation Workshop for Arizona Youth (NRCWAY) were from Santa Cruz County. Two were from Patagonia and one was from Rio Rico. Our district provides monetary support annually for this camp because its alumni go on to become leaders in natural resource conservation endeavors in their adult lives. I speak from experience since I attended the predecessor to NRCWAY when it was held at Point of Pines and run by former University of Arizona Extension Range Specialist Barry Freeman. If you know of a high school age student who would be interested in attending in 2019 watch for the application notice in the Spring.

Our district meetings are held at noon on the fourth Wednesday of even numbered months, except December, in Patagonia at the Wild Horse Restaurant. Come join us for lunch and up to date agency news. 2019 meeting dates: February 27, April 24, June 26, August 28, and October 23.

Thank you for your interest in natural resource conservation and the Santa Cruz NRCD.

Stephen Williams
Chairman

Drought

By Steven M Barker, Executive Director, Arizona Association of Conservation Districts

Drought is the lack of effective precipitation. But there are different kinds of drought. The kind of drought is determined by the intended beneficial use of the water.

Soil moisture droughts affects plant production. Soil moisture droughts occur when adequate soil moisture is not available during the growing season. Depending on where you are in the state, that might occur due to a lack of rain during the growing season, or due to a lack of rain or snow during the winter. Soil moisture droughts may be seasonal - like a dry summer. Or they may last longer and result in the mortality of perennial plants. Soil moisture droughts can also be caused by poor distribution of precipitation events - when all the effective moisture comes in one storm event instead of spreading out through the season or year. Soil moisture droughts not only affects the amount of amount of vegetation production, but also the amount of vegetation cover, which impacts how much precipitation can be captured from the next storm. It also affects the potential for new plants to germinate. From a conservation perspective, the management strategy during soil moisture droughts is simply to keep the ground covered. The focus of management is to make sure every possible acre has as much vegetation cover as possible to capture the next big storm event. That typically means hauling water to areas where there is still good vegetation, moving animals to holding areas, and feeding them, or renting pasture somewhere else.

Surface water droughts occur when the normal runoff into washes and rivers is significantly reduced. Surface water drought occurs when the runoff into streams, ponds, lakes and reservoirs is not adequate to meet the demands for various uses. Localized surface water droughts may just mean a few ranchers do not have any water in ponds for their livestock. More widespread surface water drought impact reservoirs that supply water to cities, or reduce the flow in rivers that is needed to support aquatic species.

Groundwater droughts occur when the amount of water infiltrating down into the groundwater tables is declines significantly. When groundwater recharge is not keeping up with groundwater withdrawals, wither because of drought or over-pumping, the water table declines. The result is an increase in pumping depth and costs, the potential for wells to go dry, and the potential for land subsidence which can create large fissures. It can also result in springs drying up. Very little if any of the precipitation at lower elevations gets into the groundwater table, where evapo transpiration exceeds precipitation amounts. Most groundwater recharge is from snowmelt at the higher elevations in Arizona. Groundwater replenishment comes from long periods of water soaking into the ground. This recharge mostly occurs from long, slow snowmelt on north facing slopes, from water infiltration under perennial lakes, rivers and streams, or from streams that flow for long periods of time during snowmelt.

Rainfall Summary as of Oct 17

Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
Sierra Vista - as of Oct 12											9.48
Bisbee - as of Oct 12											9.29
One mile west of Elgin	<u>0.07</u>	<u>2.65</u>	<u>0.02</u>	<u>0.00</u>	<u>0.00</u>	<u>0.90</u>	<u>4.41</u>	<u>5.05</u>	<u>0.30</u>	<u>2.21</u>	<u>15.61</u>
3 miles N. of Patagonia on Hwy 82 MP23	<u>0.00</u>	<u>3.50</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.70</u>	<u>3.60</u>	<u>3.00</u>	<u>2.30</u>	<u>2.50</u>	<u>15.60</u>
Schock Ranch	<u>0.07</u>	<u>2.47</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>1.32</u>	<u>3.49</u>	<u>1.56</u>	<u>0.90</u>	<u>0.27</u>	<u>10.08</u>
Canelo near Arizona Revegetation	<u>0.06</u>	<u>3.91</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>1.03</u>	<u>4.26</u>	<u>6.63</u>	<u>1.98</u>	<u>1.29</u>	<u>19.16</u>
1/4 mile N. of int'l border, Santa Cruz River	<u>0.01</u>	<u>3.07</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>1.00</u>	<u>3.75</u>	<u>5.74</u>	<u>1.89</u>	<u>1.75</u>	<u>17.21</u>

Northstar Skid Sprayer Available

The Santa Cruz NRCDC has a Northstar Skid Sprayer available for use by district cooperators and non-cooperators alike. Rental rate per day for cooperators is \$10, and for non-cooperators it is \$75.

This unit has a 100 gallon tank with a large neck for easy filling. It comes equipped with a 150 foot 3/8 inch heavy duty hose on a Coxreel manual rewind hose reel, as well as a reliable 160cc Honda GX engine. The frame is 2 1/2 tube with a skid for truck or side by side mounting. It delivers 5 gallons per minute with adjustable pressure.

The Santa Cruz NRCDC will request the completion of an Equipment Rental Agreement prior to use, and the payments of the daily fee and a Security Deposit by separate checks prior to use. The security deposit is \$250.

This sprayer is designed for applying pesticides, and other chemical sprays, including herbicides, fertilizers and fungicides. The Santa Cruz NRCDC does not do product endorsements, but can recommend www.dowagro.com/theranch for information about products for a particular target species and application rates. Always remember to follow the label directions and wear appropriate safety equipment and apparel for the job.

For further information contact Stephen Williams, 602-820-0191 or smw85611@gmail.com

NorthStar® Skid Sprayer is designed for applying pesticides and other chemical sprays. Tough Comet direct drive pump is powered by a trusty 160cc Honda GX160 OHV engine to deliver up to 5 gallons per minute. NorthStar's tank features extra-thick walls won't bulge or sag. It stands up to chemicals because thanks to a special polymer known for its superior chemical resistance. Tank is UV-stabilized to prevent fading and other sun damage. 150-ft. hose with gun lets user deliver the chemicals for the most effective pest control, even in hard-to-reach areas. Includes a Coxreel manual rewind hose reel.



NRCWAY Camp by Kim McReynolds



Natural Resources Conservation Workshop for Arizona Youth
James 4-H Camp at Mingus Springs, Mingus Mountain
July 16 - 20, 2018

The 2018 workshop was a success with 33 students and many staff members enjoying the outdoors while learning about Arizona's natural resources. The theme this year was wildlife. Students learned the importance of biotic communities and associated wildlife species, animal adaptations to their environment, the five components of habitat, carrying capacity, and information about many of Arizona's native wildlife species. The students worked in groups throughout the week studying selected biotic communities in Arizona and researching wildlife species that inhabit those communities. They collected insects and made their own personal insect collections to take home.

While at camp during the week, we had a significant rainfall event in the upper portion of the watershed. Students were working on their group projects, when the head of a "flash flood" came by in the stream behind the dining hall. It was exciting for everyone to watch! For their service project the next day, students cleaned debris from the pond and behind soil erosion basket structures. Swimming and fishing in the pond were popular free time activities, along with bird watching, and photography. The following Santa Cruz County students attended the camp: Nicholas Dekhtyar (Patagonia), Arriana Ochoa-Tovar (Patagonia), and Julia Wascher (Rio Rico).

Ranch Days at the Santa Cruz NRCD Education Center (Santa Fe Ranch)

Last year, there were 1,147 visits to the Santa Fe Ranch and the Santa Cruz NRCD Education Center. Three Ranch Day field trips (about 80-90 students/trip) were conducted in May at the Santa Fe Ranch for three elementary schools, Coronado, Nogales, and Little Red School House. The students participated at seven different demonstration stations. The following agencies participated: NRCS, Arizona Game & Fish, and the Coronado National Forest.



Coronado 4th Grade Class



Erosion Demonstration



Brushing a Horse



Putting Out a Small Brush Fire



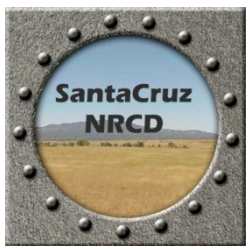
FEEDING AMERICAN FAMILIES SIGN

Would you like to proudly display the product of your livestock raising labor to feed American families? The Santa Cruz NRCD is sponsoring the sign you see shown here.

For information about placing an order for signs, custom made for your ranch please contact Stephen Williams at 602-820-0191 or smw85611@gmail.com .

Santa Cruz NRC D Booth at the Santa Cruz County Fair

Over 1,000 bags (with a pencil, ruler, & eraser) were handed out to students. Below: Dan Bell (Supervisor), George Venzel (Cooperator), Barbara Johnson (Supervisor), and NRCS staff (Brett Myers, Alvaro Campos, & Alisha Phipps).



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